

*INDEPENDENT USE OF ACTIVITY MATERIALS BY
THE ELDERLY IN A RESIDENTIAL SETTING*

STEPHEN MICHAEL GALLAGHER AND MICHAEL KEENAN

UNIVERSITY OF ULSTER AT COLERAINE

A lottery was implemented to encourage the elderly clients of a residential home to use activity materials any time they wished, independently of staff intervention and the institutional routine of the home. During baseline, there were minimal levels of independent use of activity materials by residents. Various conditions were implemented but only the introduction of a £20 lottery prize brought about a significant increase in the frequency of independent use of activity materials. A follow-up suggested that the reinforcing properties of the activity materials themselves eventually maintained the target behavior.

DESCRIPTORS: gerontology, activity materials, residential setting, elderly

Previous work in the field of behavioral gerontology has focused on the care staff as catalysts for the residents' behavior change (see Burgio & Burgio, 1986; Pinkston, 1997). Many of these studies have concentrated on care staff arranging a program of leisure activities to be implemented only at specified times as part of the facility's routine. The purpose of the present study was to design a program in which the residents would independently engage in a range of leisure activities at any time they wished. This is important because increased independent activity may reduce social isolation and increase exposure to stimulation and reinforcement (Wisocki, 1984). A lottery was introduced in order to encourage the independent use of activity materials. It was hoped that the lottery would initiate the residents' independent use of activity materials and that participation in the activities would provide sufficient reinforcement in the future.

METHOD

Setting and Participants

The study was carried out in a large urban residential home housing 35 residents (19

female and 16 male) with ages ranging from 46 to 97 years ($M = 76$ years). All the residents could move about independently, or with walking frames or canes. Consent to carry out this study was obtained from both nursing staff and management. Residents were not required to participate, but all had an equal opportunity to do so if they wished. The population of the facility remained the same throughout the study.

Observation

Data on the frequency of independent uses of activity materials were collected between 8:00 a.m. and 5:00 p.m. each day for 24 weeks. An *independent use* was defined as the appropriate use of an activity material by 1 or more residents. The materials available were darts, board games, jigsaw puzzles, library books, skittles (a game in which the object was to knock over plastic pins with an inflatable ball), and indoor crown green bowls. Those participants who wished to make use of activity materials were asked to have their names and the activity of their choice recorded by the nurse on duty, who was the primary observer. Once the resident was observed to use the activity materials appropriately (e.g., throwing darts at a dart board), the independent use was recorded. A second observer recorded the frequencies of

Address correspondence to either author at the Department of Psychology, University of Ulster, Cromore Road, Coleraine, Co. Derry BT52 1SA, Northern Ireland.

residents' independent use of activity materials during a random number of work shifts. The second observer was present for 22% of the observations. Because the activity materials were used in open areas, the residents were easily observed while engaging in the activities. Also, if the activity was used by more than 1 resident, each individual's participation was recorded as an independent use. For example, if 4 people were playing darts, then this was recorded as four independent uses. Observers were found to be in agreement if both noted the resident using the activity materials appropriately. Interobserver agreement was 100% across all sessions using a percentage agreement statistic (agreements divided by agreements and disagreements and multiplied by 100%).

Procedure

Baseline data were collected daily for 2 weeks to assess the frequency of unprompted independent use of activity materials by all residents. Regular activities provided by the facility were "bingo" and "beanbags" (a simple throwing and target game). These activities remained available throughout the study. Across 24 weeks, five different conditions were implemented (see below).

Verbal prompt. During dinner time each day for 1 week, a verbal prompt was given to make the residents aware of the activity materials available. This was done in the dining room where all the residents were present. The following statement was made by the researcher, "If anyone wishes to use any of the home's activities feel free to do so any time you would like. Simply take the equipment you need and give your name to the nurse in charge."

Poster prompt. A poster listing the various activities and instructions was then placed on the home's notice boards for a 2-week period in addition to the verbal prompt.

Management prizes. A lottery was introduced with prizes of confectionery and toi-

letries, as chosen by the management. The residents were not deprived of any items originally provided by the staff. That is, nothing that was previously supplied non-contingently was included in the lottery. Each time a resident wished to independently use an activity material, he or she signed the sheet at the reception desk. Only when the observer was satisfied that the resident was using the activity materials appropriately was he or she given the ticket. This was to ensure that the residents were not merely checking materials out in order to obtain a lottery ticket. Six weekly drawings were organized. One winning ticket was drawn at random by the management each week.

Residents' choice. A lottery allowing the residents to choose prizes equaling the cost of the management-selected prizes from the previous condition was initiated for 3 weeks. (It should be noted that the management did not allow cigarettes to be chosen by the residents as a prize even though they were a popular choice.) Prizes made available included magazines, newspapers, puzzle books, and socks. One winning ticket was drawn at random by the management each week.

£20. A lottery, with a £20 gift voucher for a local department store as the prize, was offered. One winning ticket was drawn by the management after 2 weeks. A return to baseline was then initiated for 2 weeks to measure response maintenance. This was followed by another £20 prize and an additional return to baseline.

Follow-up. Measurements were conducted 6 weeks later to assess whether independent use of activity materials was maintained in the absence of the £20 gift voucher condition.

RESULTS AND DISCUSSION

Figure 1 shows that, during baseline, residents displayed low frequencies of indepen-

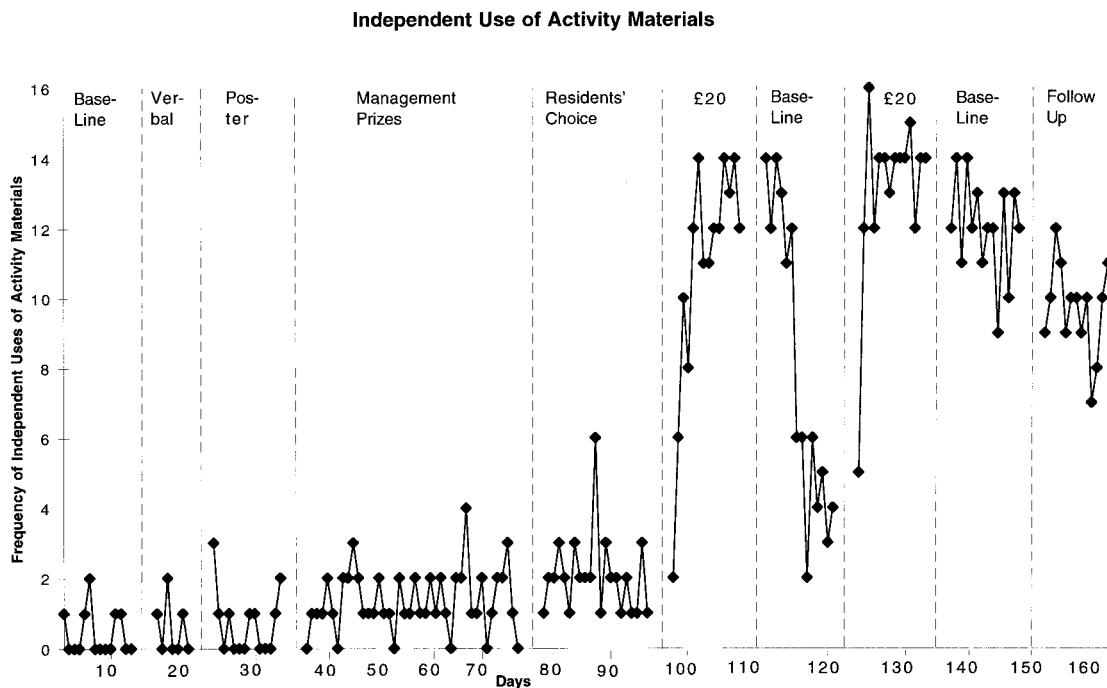


Figure 1. Frequency of independent uses of activity materials by the entire group.

dent use of activity materials (57% of days with no use of activity materials). The verbal and poster prompts brought about no change in these frequencies (57% and 50% no-use days, respectively). This may have been due to the effects of the noncontingent scheduling of regular activities within the facility (i.e., the residents were content to have the activities arranged for them by the staff). Upon the introduction of the first lottery using prizes selected by the management, there was a small but noticeable change in frequency. Also, only 14% of those days showed zero levels of activity use. Similar results occurred when the residents chose their own prizes. However, no days with zero activity use were recorded.

The introduction of the £20 gift voucher produced a substantial increase in the levels of independent use of activity materials. In addition, residents requested that other activities be included on the list (e.g., gardening in the greenhouse, watching videos, and listening to music). The return to baseline

resulted in a decrease in the frequency of independent use of activity materials, although not to the levels noted initially. With the reinstatement of another £20 prize condition, response frequencies rose to a high of 16 independent uses of activity materials in 1 day. A return to baseline again showed a decrease in frequency but not to initial low levels. A follow-up, carried out 6 weeks later, demonstrated that activity use was maintained at frequencies of 9 or 10 independent uses of activity materials each day. This may have been due to the reinforcing properties of the activities themselves, suggesting that, once the residents came in contact with the activities, contrived reinforcement was no longer needed.

The aim of this study was to increase general levels of independent activity within a residential setting. To some extent the results from the £20 lottery prize condition showed that a lottery can be used successfully in long-term care settings for the elderly. Of particular interest was the finding that 15

(42%) residents regularly engaged in independent activities during the study. This was a substantial increase over participation in the facility's regular activities (which usually attracted 8 or 9 residents). Future studies could examine the use of reinforcer sampling, preference assessments, and prompting to further increase participation.

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